

A list of all claims in the application is presented below.

1-36. (Canceled without prejudice).

37. (Original) An energy recovery ventilator having a separator between a first passageway and a second passageway for a first gas stream and a second gas stream to pass therethrough, respectively, said separator comprising an at least partially sulfonated random hydrocarbon copolymer ionomer membrane.

38. (Original) The energy recovery ventilator as recited in claim 37, wherein said at least partially sulfonated random hydrocarbon copolymer ionomer membrane is permeable to water vapor.

39. (Original) The energy recovery ventilator as recited in claim 37, wherein said first gas stream and said second gas stream flow in a co-flow relationship.

40. (Original) The energy recovery ventilator as recited in claim 37, wherein said first gas stream and said second gas stream flow in a counterflow relationship.

41. (Original) The energy recovery ventilator as recited in claim 37, wherein said first gas stream and said second gas stream flow in a cross flow relationship.

42. (Original) The energy recovery ventilator as recited in claim 37, further comprising:
a three-dimensional structure disposed in at least one said passageway to maintain said passageway open.

43. (Original) The energy recovery ventilator as recited in claim 42, wherein said three-dimensional structure comprises a plurality of uniformly stacked pyramids.

44. (Original) The energy recovery ventilator as recited in claim 42, wherein said three-dimensional structure induces stirring in said gas stream flowing in said passageway, thereby increasing the effectiveness factor of said plate-type heat exchanger.
45. (Original) The energy recovery ventilator as recited in claim 42, wherein said three-dimensional structure comprises a plurality of spacer bars.
46. (Original) The energy recovery ventilator as recited in claim 37, further comprising:
a substantially two-dimensional reinforcement structure associated with said membrane to support said membrane.
47. (Original) The energy recovery ventilator as recited in claim 46, wherein said substantially two-dimensional reinforcement structure comprises a two dimensional trigonal structure.
48. (Original) The energy recovery ventilator as recited in claim 46, wherein said substantially two-dimensional reinforcement structure comprises a sheet of webbed netting.
49. (Original) The energy recovery ventilator as recited in claim 46, wherein said substantially two-dimensional reinforcement structure comprises a layer of plastic.
50. (Original) The energy recovery ventilator as recited in claim 49, wherein said layer of plastic comprises a selected one of polytetrafluoroethylene, expanded polytetrafluoroethylene, polypropylene, and an open cell polymer film.

51. (Original) The energy recovery ventilator as recited in claim 37, further comprising a single structure that combines the functions of a three-dimensional structure disposed in at least one said passageway to maintain said passageway open and a substantially two-dimensional reinforcement structure associated with said membrane to support said membrane.
52. (Original) The energy recovery ventilator as recited in claim 51 wherein said single structure comprises a layer of web netting including nodes having a dimension substantially equal to a dimension of said passageway.